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1. (Amended) An apparatus for fabricating an optical fiber grating, comprising:
- an optical fiber;
  - a light source for projecting light beam at a perpendicular direction to the optical fiber;
  - a mask having an array of elongated openings spaced apart by a predetermined interval period through which the light beam from said light source is transmitted;
  - a lens interposed between said optical fiber and said light source for focusing the light beam; and,
  - a mobile lens, disposed to intercept the focused light beam from said lens, for diverging the focused light beam along the lengthwise direction of said optical fiber and changing the period of the optical fiber grating.
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5. (Amended) An apparatus for fabricating an optical fiber grating, comprising:
- an optical fiber;
  - a light source for projecting light beam at a perpendicular direction to said optical fiber;
  - an integrated multi-period mask through which the light beam from said light source is transmitted, said mask spaced apart from said optical fiber by a predetermined distance;
  - a lens interposed between said optical fiber and said light source for focusing the light beam; and,
  - a movable concave lens, disposed to intercept the focused light beam from said lens, for diverging the focused light beam along the lengthwise direction of said optical